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A N
INAUGURAL DISSERTATION

O N
PHTHISIS PULMONALIS;
SUBMITTED TO THE EXAMINATION

O F T H E
Rev. John Ewing, s. t. p. Provost,

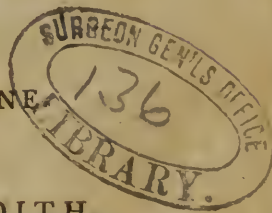
T H E
Trustees and Medical Faculty

O F T H E
UNIVERSITY OF PENNSYLVANIA;

ON THE TWENTY-SEVENTH DAY OF MAY, 1802.

For the Degree of
DOCTOR OF MEDICINE

BY CHARLES MEREDITH,
OF PENNSYLVANIA.



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NOTES TO THE READER

THESE NOTES ARE TO BE READ

BEFORE THE READER

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TO

Doctor *Hugh Meredith,*

OF

BUCKS COUNTY, PENNSYLVANIA,

THIS

DISSERTATION

IS

Respectfully Inscribed,

BY HIS

Much obliged Son and Pupil,

THE AUTHOR.



INTRODUCTION.

PULMONARY Consumption has been so frequently the subject of Medical investigation, that a mere repetition of what has been already said may perhaps seem superfluous.

But as the information respecting this disease is diffused through so many volumes, I have judged it a matter of some importance, to collect into the usual limits of an Inaugural Dissertation, those ideas which appear to me the most appropriate.

I shall likewise subjoin some remarks on the subject which my own experience may warrant.

I do not flatter myself that the following sheets will contain much new information, or that I shall add considerably to the facts already established: and as I here make acknowledgments to the authors from whom my information has been derived, I will indulge the hope, that particular references may be dispensed with.

In selecting the subject of Phthisis Pulmonalis, I am well aware of the difficulties I have incurred, and am conscious of my inability to do justice to a theme at once so complicated and important: but knowing the liberality of sentiment which so peculiarly marks the character of the Gentlemen to whom it is particularly submitted, I feel an assurance, that the first essay of a juvenile mind, although wide of perfection, cannot fail to meet with a flattering indulgence.

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INAUGURAL DISSERTATION, &c.

THAT disease, which is described by medical writers, as consisting of an ulcer in the substance of the lungs, attended with an expectoration of purulent matter, and a hectic fever, has been called Phthisis Pulmonalis.

Although these may be generally considered as diagnostic symptoms, and very certain criteria, by which *this* may be distinguished from other pulmonary affections, yet the evidence which supports the opinion that Phthisis is sometimes unattended with abscess of the lungs, renders it probable that the suppurative inflammation may take place, and pus be discharged from the lungs without any ulceration of their substance.

Pulmonary Consumption generally makes its first approaches in the form of a short and dry cough, with difficult and hurried respiration, on the least bodily exercise, the cough is far more particularly to be observ-

ed on lying down ; the patient becomes languid and is much affected with lassitude from the most trifling exertions. These symptoms are for the most part so slight, as to be altogether unobserved, or little regarded, by the patient or his friends. If under these circumstances a catarrh should be superadded to the symptoms already mentioned, the cough becomes evidently worse, a discharge first of mucus, and afterwards of purulent matter takes place, respiration becomes more difficult, and emaciation and weakness progress very rapidly. About this period the catamenia in women cease to flow ; and from this circumstance they are often led to entertain the most sanguine hopes of a speedy cure, as it is from the suppression of this evacuation that they imagine all their complaints arise. We do not always meet with much increase of the frequency or fulness of the pulse in the first stages of Phthisis Pulmonalis, but it becomes quick as the disease progresses, and evening exacerbations become evident. This state of the complaint has obtained the name of Hætic. A pain in some part of the thorax, most commonly immediately under the sternum, is sometimes the first indication of incipient Consumption ; the sensation is most troublesome upon a full inspiration, or upon the patient's lying down, sometimes it is confined to one side, rendering a recumbent position disagreeable and tiresome.

In this manner Phthisis usually progresses, all its symptoms abating during the summer season, and re-

turning with renewed violence the ensuing winter, years frequently elapsing before its final termination in health or in dissolution.

The fever which attends Pulmonary Consumption, and which is distinguished from other febrile affections by the appellation of *Hætic*, appears, according to Doctor Cullen, in the form of a remittent, with two exacerbations occurring in the latter part of every day, the second gradually increasing till after midnight, when a remission takes place, and becomes more evident as the morning advances ; the exacerbations are frequently attended with cold shivering and a morbid sensibility to any coolness of the air : that which takes place in the evening is always the most considerable.

Doctor Heberden describes *hætic* fever, as approaching nearer the form of genuine intermittent than remittent fever. I believe that it is sometimes marked with regular accessions of cold, heat and sweat, and preserves its uniformity through its whole course ; yet, as the Doctor observes, in the most perfect Intermision, the pulse generally beats ten strokes in a minute more than exceeds the utmost limits of a healthy one. But notwithstanding this regularity may be sometimes observed, in a great majority of cases, the accession of the paroxysms preserves no uniformity, sometimes keeping off for ten or twelve days and at other times recurring very often on the same day---The patient is little relieved by the coming on of the sweat, but is often as

anxious and restless under it as during the chill or heat; when the sweat is over the fever will sometimes continue, and in middle of the fever the chill will return; this has been esteemed one of the most certain indications of Hectic. The urine is high coloured, and exhibits a branny cloud, which seldom falls close to the bottom of the vessel. The thirst is not often considerable, and the appetite for food little impaired; the mouth is for the most part moist, and the tongue and fauces are clean and sometimes present an appearance of inflammation. The face is commonly pale, but during the exacerbations, a circumscribed redness appears in each cheek.

For some time after the fever commences, the patient is costive, but in its more advanced stages, a diarrhoea supervenes, which continues at intervals during the remainder of the disease.

It has been remarked, that greater degrees of debility and emaciation are consequent to this, than to any other form of fever. Delirium seldom attends Hectic; the senses and judgment commonly remain unimpaired, and the most sanguine hopes of recovery, leave the patient, but with life. Towards the close of the disease, he becomes restless and discontented, the mind and memory seeming sometimes to share in the general debility of the body; his voice falters, a distressing hiccough and slight convulsions come on; his peevish complaints subside, and he sinks to death without a consciousness of pain or anxiety.

I have thus endeavoured to give a description of Pulmonary consumption as it most generally appears, but the shapes it assumes are so various, and its symptoms often so complicated, that the limits of an inaugural essay do not permit me to trace it through its different forms. It may not however be improper to observe here, that it not unfrequently alternates with some other diseases, the most common of which are rheumatism, gout and diarrhœa ; it has likewise been observed to give place to Mania, pains in different parts of the body and cutaneous eruptions ;—but its progress appears to be arrested in the most remarkable degree by the state of the system, which is induced by pregnancy ; from this circumstance Doctor Beddoes has founded his very ingenious theory of the disease ; ascribing it to an undue Oxygenation of the blood ;—gestation in his opinion by diminishing the capacity of the thorax, and thereby lessening the proportion of Oxygene decomposed in the lungs, must necessarily tend to suspend the symptoms of the disease till delivery ; after which period we find the disorder progresses as before gestation.

Phthisis Pulmonalis generally attacks persons between the fifteenth and thirty fifth years of life, but may occasionally happen before, or after that period.—Those who have grown fast, have clear skins and delicate complexions are the most liable to pulmonary complaints.—A narrowness of the chest, and an elevation of the sternum, with a remarkable projection of the processes of the os sacrum are evidences of a predisposing conformation. It has likewise been a general observation, that a

whiteness or transparency of the teeth, is a characteristic of Phthifical diathesis. Doctor Simmons observes that the greater number of those who are carried off by this disease, will be found never to have had a carious tooth.—I do not take upon me to determine, how far the doctor's assertion may be consistent with the observation of others, but believe, that in this country at least, instances to the contrary may be met with daily.

Women are more frequently affected with pulmonary consumption than men—they partake but in a small degree of those exercises so necessary to the health of the body.—Their delicate frames render them extremely susceptible of the action of exciting causes; and their modes of dress, by compressing the thorax, and obstructing a free respiration, necessarily predispose them to Phthifical complaints; hence we daily see numbers of the fairest ornaments of human nature hurried to a premature grave.

It is generally believed that the Aborigines of our country were nearly exempted from this disease; however this may have been, it is certain, that since the introduction of European intemperance amongst them, consumption has not been unfrequent; the active employments of the Indians are very limited, and for the most part the calls of hunger only can rouse them from the state of inactivity attendant on the savage life; from these circumstances, I think it not to be wondered at, if Phthisis pulmonalis should be found to be one of their most frequent diseases. If any situation in life can en-

tirely preclude from pulmonary consumption, it is most probably that state of civilized society, in which the industrious and frugal peasant is barely supported by an unremitted industry—a state equally removed from the temptations of imported luxury, and the allurements of savage indolence.—In confirmation of this idea I am happy in being able to bring forward the testimony of Doctor Rush, who observes, when speaking of this disease, that it is scarcely known among the inhabitants of our frontier settlements.

It has been an idea, held out by some of the first medical characters, that consumption sometimes depends on specific contagion, and many instances have been adduced where one person has communicated the disease to another ; but this theory is at best hypothesis, and even wants the character of probability ; I am of opinion that such cases may be accounted for with more propriety, on less exceptionable grounds ;—It cannot be denied that an hereditary predisposition often exists, by which more than one person in a family may be subjected to Phthisis—add to this the state of debility induced by a constant attention to a patient languishing under this disease, and we will not be surprised that some instances of the disorder should be attributed to contagion.

It has been before observed that an expectoration of purulent matter is one of the characteristic symptoms of Pulmonary consumption ; the mucus which is thrown up from the lungs in catarrh frequently resembles this

in a considerable degree, and as it is of great importance to be able to distinguish one from the other, I shall subjoin the methods commonly used for this purpose.

1st, Mucus and pus both acquire a greenish colour some time after they are formed, but it is more evident in the latter, than in the former.

2nd, Mucus is viscid and coherent, pus more friable; the former preserves its continuity when agitated in water, the latter is separated into small fragments under the same circumstances.

3rd, Pus when thrown on the floor spreads over a considerable surface, the particles of mucus adhere more closely together, and present a different appearance.

Beside the judgment to be formed from the above criteria, the experiments of Mr. Charles Darwin have thrown considerable light on the subject, and may be had recourse to, where the nature of the case admits of doubt. He observed that sulphuric acid dissolves both mucus and pus, but most readily the former, by adding water to the solution of mucus, this is separated and swims on the surface, or is suspended by the liquor in small flakes; whereas if water be added to a like solution of pus, this falls to the bottom, or forms an uniformly turbid liquor by agitation. Nitric acid dissolves both mucus and pus; water added to a solution of the latter, produces a precipitation, and the fluid above becomes clear and green; while water and the solution of mucus form a dirty coloured fluid. Alkaline lixivium dissolves mucus, and

generally pus ; by the addition of water to their solutions the latter will be precipitated, but the former will not. Where alkaline lixivium does not dissolve pus, it still distinguishes it from mucus, as it then prevents its diffusion through water.

The oxygenated muriate of mercury coagulates mucus but does not pus.

Lastly, a purulent expectoration may be known from a mucus discharge, by the former being attended with hectic fever.

I shall in the next place proceed to state the causes on which pulmonary consumption depends ; these are remote, predisposing, exciting and proximate. Whatever tends to impair the strength of the system, thereby inducing a state of debility in the body in general, or in the lungs in particular, so as to render them more susceptible of the action of stimuli, may be justly enumerated among the remote causes of this disease.

Hæmoptysis, Pneumonia, Catarrh and Scrophula, when they induce a state of chronic debility, are frequently found among the remote causes of Phthisis. Medical writers have likewise described it as an effect of local injuries, particularly wounds of the lungs ; it is said to arise also from the dust discharged in certain manufactories. In my opinion the last mentioned circumstances can operate as remote causes much less frequently than has been generally supposed. Wounds in the substance of the lungs if they occur, in a healthy state of the system,

I believe are found to heal as certainly, and in as short a period, as injuries in other parts of the body. Mr. John Hunter, when speaking of consumption from this cause, observes that he never saw it produced by a wound of the Lungs. Doctor Rush, in his second volume of medical enquiries and observations, gives an instance, which must set aside every doubt on the subject. Out of twenty-four soldiers, who had been admitted into British Hospitals, during the campaign of 1776 in the late American war, with wounds in the Lungs, twenty three of them recovered perfectly.

The floating particles of dust, by which millers are subjected to a cough, I believe never produce Phthisis unless there has been a predisposition, or some unfavourable concomitant circumstances.

Heat suddenly succeeding cold, violent exercise, and stimulating passions, are frequently remote causes of consumption ; these may either bring on a state of indirect debility, or, by inducing a preternatural determination to the lungs, may excite hæmorrhage, and thereby create a weak part.

To these causes may be added, a sedentary life, and the suppression of any customary evacuation.

It may not perhaps appear foreign to our subject, to enquire, under what circumstances Hæmoptysis, Pneumonia and Catarrh, are followed by consumption of the lungs ? Whenever Hæmoptysis occurs as a symptom of a general disease, which has occasioned a considerable

degree of debility, a phthisis pulmonalis may be dreaded as its consequence; the same may be expected, when from the magnitude of the injury, and the irritation given to the Bronchial vessels, a cough is induced which if long continued, must necessarily bring on a state of general or pulmonary debility. In this situation of the system, Hæmoptysis is most commonly followed by abscess in the lungs. But when the debility induced is temporary, and capable of being removed by cordial diet or tonic medicines, all the symptoms of disease disappear, upon the restoration of the system to its accustomed vigour.

Pneumonia has been seldom the remote cause of pulmonary consumption, except in those cases in which the cure has been left in the hands of nature, and sufficient evacuation has not been resorted to—Nature endeavouring to relieve herself of the violent symptoms of the former disease, produces a vomica or an effusion on the lungs; thereby changing an acute into a chronic affection. From this circumstance Dr. Rush has with much propriety, called Pneumony an acute consumption, and consumption a chronic pneumony.

As the debility attending these cases is generally transient, and differs widely from that habitual predisposition already mentioned; we find fewer instances of mortality in Phthisis Pulmonalis from this than from any other cause. A nourishing diet, fresh air, and a return to customary exercises, very frequently restore the patient to perfect health.

It has been supposed, that the mucus thrown from the lungs in catarrh, is sometimes gradually converted into pus, thereby forming a genuine Phthisis pulmonalis, this I can easily conceive to be possible, for although Catarrh is for the most part a mild disease, yet when it has been of long duration, and by constant irritation has induced a state of general debility, a suppurative inflammation of the lungs and Bronchia may take place, and purulent matter be discharged. That this suppurative inflammation does actually take place, in the lungs, I infer from many well attested cases, where upon dissection, no abscess nor ulceration were observed in their substance, although large quantities of matter, evidently purulent, had been expectorated.

We frequently meet with cases of catarrh, which have continued for many years without producing Phthisis pulmonalis, more especially in persons who pursue active and invigorating occupations, it is therefore probable that it seldom operates as a cause of Pulmonary consumption, and in those cases in which it does, it is only when joined with a consumptive diathesis, or has occasioned a considerable degree of general debility.

From what has been said respecting the remote causes of this disease, it is evident that they tend to produce a state of the system, liable to morbid excitement on the application of stimulus; this state has been called debility, and is the predisposing cause of disease. Stimulus acting on this diminished energy, is the exciting cause. Any of the remote causes enumerated may induce this

complaint ; and whether it be heat, fatigue or intemperance, they all act in the same manner.

Various theories have been offered of the Proximate cause of Pulmonary consumption, some of which, after misleading the medical world for centuries, have been laid aside, as inconsistent with the late improvements in Physiological science ; others, after obtaining a short lived popularity from their ingenuity, have fallen into neglect for want of facts or probability.

I am of opinion that the least objectionable theory is, that a morbid excitement in the blood vessels generally, and in those of the lungs in particular, forms that state of fever, which has been distinguished, by the name of pulmonary.

In a disease by which so many of the human race are daily carried off, it will not be surprising that numberless remedies have been proposed to arrest its progress ; but the almost undiminished number of its victims, still bears a sad testimony of the success of our prescriptions ;—those instances which have yielded to medicines, are for the most part such as arise from pneumonia, or depend on occasional or transient debility ; but in those cases which arise from hereditary or habitual predisposition, our endeavours have been generally fruitless.

I apprehend that a great cause of our insufficiency in the cure of phthisis, may depend on the very gradual manner in which its approaches are made ;

they are for the most so flow that the patient, seldom complains till the disease is incurable. Indeed he is so invariably possessed with an idea of the favourable termination of his disorder, that throughout its whole course he is willing to indulge the most flattering expectation, and too often neglects the only possible means of recovery. If ever providence had stamped a necessary fatality on the character of any disease which afflicts our species, it had most probably been on pulmonary consumption, wherein he kindly permits the lingering victim still to hope, and indulges him with the pleasing delusion of returning health till the latest period of his existence.

Until the late improvements in medical science, this disease was looked upon as local ; physicians prepossessed with this idea, have in vain searched the materia medica for a specific, which may invariably prove a remedy to the affection of the lungs ; experience has proved the futility of the research, and more accurate observation evinced, that Tubercles and pulmonary abscesses are symptoms of a general disease, and only to be cured by those remedies, which eradicate the general affection of the system.

As consumption of the lungs always depends on debility as its predisposing cause, our first object should be either to remove the debility, or to determine the action of exciting causes, to parts of the body less essential to life, than the lungs.

The preventive remedies principally to be relied on, are wholesome exercises, a dry situation, the cold bath, peruvian bark, and cordial diet. If these are attended to, and duly administered during the forming stage of pulmonary consumption; it may, I believe be very frequently protracted, to that period of life, in which the system is less subjected to indirect debility, and the diseases which induce phthisis less frequently occur.

When the complaint has been neglected in its forming stage, although there may sometimes be a complication of symptoms, yet the inflammatory diathesis is generally so prevalent, that the usual remedies for increased action of the arterial system are plainly indicated.—These are blood-letting, nitre, digitalis, vomits, dry air and a vegetable diet; blisters and mercury may also be enumerated here.

The hard pulse and laborious respiration which attend the inflammatory state of this disease, evidently prove the propriety, and even necessity of blood-letting,—To render this remedy effectual, it should be frequently resorted to, and the quantity taken at each time, should be regulated according to the violence of the disease and the constitution of the patient. I have had frequent opportunities of seeing blood-letting used with surprising advantage, and we have many well attested instances of persons predisposed to consumption who by occasional recourse to this remedy, on the appearance of any inflammatory symptoms, have attained to old age without

any serious pulmonary affections.—The respectable testimony of Dr. Mead, adds not a little to the character of our remedy, and the causes of Phthisis cured by accidental hæmorrhage are satisfactory proofs of its efficacy—If advantage has been gained by those precarious discharges from the erring hand of nature, how much more may not be expected where the evacuation is apportioned to the condition of the patient, by the discernment of a physician.

Although Nitre has been one of the most commonly prescribed remedies, I am inclined to believe its use in Phthical complaints should be more limited than has been hitherto imagined, when combined with some of the mercurial or antimonial preparations it may be administered in small doses with very great advantage, but the disagreeable effects arising from its use, on the Stomach and Bowels, often render a continued exhibition of larger quantities impracticable.

The *Digitalis Purpurea* or Foxglove, has of late excited a considerable share of the public attention, as a remedy in pulmonary consumption; its general operation on the vascular system, and the history of cases in which it has been used with advantage, confirm me in the opinion, that it can only be prescribed with a prospect of success in the inflammatory stage of this complaint. The cases detailed by Doctor Moore, which occurred in the Philadelphia Alms-house, and in which digitalis was exhibited with so much advantage, were evidently inflammatory.

Dr. Withering, in his treatise on this plant, complains of its want of efficacy in Phthisis Pulmonalis; I am of opinion that his want of success may in some measure have depended on the advanced stage of the disease, for the cases he has recorded, were evidently too far advanced to admit of the antiphlogistic mode of treatment. It may be easily supposed that the medicine so far from proving a remedy, may be of serious injury after the disease has passed its inflammatory state.

Notwithstanding the ill success of Dr. Withering's prescriptions, fox glove is esteemed a specific in Phthisis pulmonalis by the common people in some parts of England, and it is not improbable that it may have been a valuable medicine even in their hands, for as in this state of the disease the symptoms are most distressing; so the patient would have a much greater inducement to call for relief, than when the more flattering, but not less mortal, typhus state comes on.

I have had several opportunities of seeing this medicine administered in pulmonary cases, the benefit which resulted from its use in some of these, convinces me that it may be often substituted with advantage for the remedies in common use. Although in the only case wherein a cure was performed, blood-letting was also had recourse to; I am nevertheless of opinion that digitalis was of eminent service, for I do not recollect such speedy and perfect success from blood-letting alone. I shall briefly state the case I allude to.

Mr. J. H. Etat. 30 in consequence of an ill cured Pneumony, in April 1801, was seized with symptoms of

Phthisis Pulmonalis, he complained of an acute pain under his sternum, a troublesome cough, and great difficulty of breathing, his cheeks were flushed, chills and fever recurring in the afternoon. He was much afflicted with night sweats, and an expectoration of purulent matter; although his pulse was fuller than that which generally denotes hectic, there could be no doubt of his disease being a genuine Phthisis. Under these circumstances blood-letting was prescribed, and about 40 ounces were taken in the space of four days. This evacuation was attended with evident advantage, and although the disease still appeared to continue, the more distressing symptoms were much alleviated.

The pain of the thorax was less severe, and the cough and expectoration evidently diminished; his pulse, although its fullness and frequency were somewhat abated, still indicated a considerable degree of morbid excitement; it may not be amiss to observe, that the chills, which before recurred after stated intervals, no longer observed regular periods of accession. The patient having now learned from some of his officious neighbours, that his disease was consumption, and consequently beyond the reach of human skill; and that blood-letting was a very fashionable mode of terminating the complaints of incurables, would be persuaded by no arguments, to permit more blood to be taken. It was therefore thought proper to try the effects of digitalis, this was given in the form of pills; three grains a day were at first exhibited, and the doses were gradually increased, till he took six grains in a day, be-

yond which he did not go. After he had been on the use of this medicine about a week, he began to feel a considerable alleviation of his complaints, and in a short time was able to ride on horse back with ease and pleasure, when either through excess of fatigue, or by taking cold, his disease returned as severely as before. The pain in his thorax was so violent, that he no longer objected to bloodletting; he was accordingly bled three or four times, and again had recourse to digitalis as before; his pulmonary symptoms soon vanished, and he has since followed the usual business of a farmer, I believe, in perfect health. Except an epispastic, laid on his breast, and the occasional use of Opiates, this patient used no other means for the recovery of his health than those before mentioned.

Although in this, and some other cases of the same nature, our medicine seems to have been given with advantage; it must be confessed that in by far the greatest proportion of pulmonary affections, no real advantage has resulted from its use; but a remedy, which has even in a few instances, arrested the progress of so mortal a disease, certainly deserves attention, and this more particularly, as it is probable that many instances of its failure have depended on its exhibition in states of the system, which have forbidden an antiphlogistic mode of treatment.

I am not prepared to determine on the advantage derived from the administration of vomits in this disease, having seldom seen them used, but from their gen-

eral operation, suppose they may be safely substituted to some of the above remedies, where these are objected to;—I am the more disposed to think highly of emetics, as they have received a high character from the very ingenious Dr. Reid.

Dry air is next to be considered : beside the beneficial effects of this as a preventive of Pulmonary diseases, it is proper to mention it as an antiphlogistic remedy. In that active state of the pulse, which attends catarrh, and which in a moist atmosphere is indicative of incipient Phthisis, a change to a dry situation almost certainly effects a cure.

A family who lived in a stove-room, which had a direct communication with a large spring of water immediately below it, was affected with pertussis during the last winter ; one of the family died some time since of pulmonary consumption, two others who had evidently symptoms of incipient Phthisis, were speedily cured by a change of their habitation.

The effects of cold and dry air in reducing the frequency of the pulse, evince the propriety of its being used in the inflammatory state of this disease.

A vegetable and mild diet, as it tends to lessen the action of the arterial system, certainly ought to be called in aid of the above mentioned remedies.

It has been a common practice to prescribe blisters in the latter stages only, of consumption, under a mistaken idea that they injure the patient by increasing the inflammatory diathesis ; but

time be lessened by depleting remedies, I am confident that it is in the first stage only we can expect much permanent relief from their application, although they may at any time be used as palliatives.

Mercury has of late attracted considerable notice as a remedy in phthical cases, the depletion it gives the system when it excites a salivation is certainly productive of beneficial effects ; and the new and powerful action it induces, seems well calculated to counteract the morbid excitement of the lungs.

It now remains to say something concerning the remedies for the more advanced stage of pulmonary consumption, or what professor Rush has, with much propriety, called the typhus state.

The gums and Balsam, formerly the principal medicines given in this disease, have been found serviceable only when the reduced state of the system requires stimulating remedies.

Wine, peruvian bark, and the cold bath ; although they have been much condemned, are found not only perfectly innocent, but of great advantage, where there is a total absence of inflammatory diathesis.

Cordial and stimulating diet, given without waiting for the calls of appetite, by keeping up a gentle stimulus, may sometimes prevent the diarrhoea which so frequently forms the closing scene of this disorder.

Air, in which there is a diminished quantity of Oxygen, has been proposed ; and Dr. Withering found the

respiration of carbonic acid gas of infinite advantage to some of his patients—but the effects of this prescription have been so various, in the hands of different medical gentlemen, that I am not competent to decide on its medical virtues—but from what has been said of its use, I am inclined to believe it will be found most serviceable in the typhus state of consumption.

Although opiates may be used with advantage in every state of the disease, yet as the benefit derived from them, is always less in proportion to the action of the arterial system, I have thought most proper to mention them here ; independent of the advantage derived from the abatement of the cough and dyspnea, we may calculate highly on the stimulating qualities of opium.

The remedies above mentioned have in some cases proved beneficial, but in many others they are at best but palliatives—Long continued exercise has been proposed as a radical cure ; but we find the patient so averse to the fatigue he must necessarily undergo, that it is seldom resorted to. This is the more to be lamented, as we have yet no succedaneum for those active and invigorating pursuits, which alone seem adequate to remove that great degree of chronic debility on which pulmonary consumption depends.

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